

Appl. No. 10/043,266
Amdt. Dated November 18, 2005
Reply to Office action of September 2, 2005

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Listing of Claims

Claims 1-6 (canceled)

Claim 7 (currently amended) The A method of claim 1, for dynamically allocating Internet Protocol addresses for a wireless cell, said method comprising:

determining a total Internet Protocol address pool for the wireless cell, wherein said step of determining a total IP address pool includes the steps step of utilizing at least one of:

real-time data, including present network IP address demands associated with the wireless cell;

non-real time data including previous IP address demands associated with the wireless cell;

call blocking parameters;

quality of service and performance parameters; and

third party data including third party ISP address allocation specifications, quality of service parameters or performance parameters;

partitioning the Internet Protocol address pool into groups of address spaces for use with an associated user group within the wireless cell;

monitoring IP address demands associated with the wireless cell; and

updating the groups of address spaces using an IP server.

Claim 8 (currently amended) The A method of claim 1, further for dynamically allocating Internet Protocol addresses for a wireless cell, said method comprising:

determining a total Internet Protocol address pool for the wireless cell;

partitioning the Internet Protocol address pool into groups of address spaces for use with an associated user group within the wireless cell;

monitoring IP address demands associated with the wireless cell;

updating the groups of address spaces using an IP server; and

assigning a priority level to a mobile host requesting an IP address associated with each wireless cell;

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wherein the priority level is set at a first level in the case of a handoff mobile host and at a second level in the case of a resident mobile host, and the first priority level is greater than the second priority level.

Claim 9 (canceled)

Claim 10 (currently amended) ~~The A method of claim 2 further~~ for dynamically allocating Internet Protocol addresses for a wireless cell, said method comprising:

determining a total Internet Protocol address pool for the wireless cell;

partitioning the Internet Protocol address pool into groups of address spaces for use with an associated group within the wireless cell, said step of determining a total Internet Protocol address pool comprising the step of performing a predictive analysis to allocate Internet Protocol address space for the associated user group within the wireless cell;

monitoring the IP address demands associated with the wireless cell;

updating the groups of address spaces using an IP server; and

establishing guard bands for device categories to ensure a minimum number of Internet ~~protocol~~ Protocol addresses are available for the device categories based on the predictive analysis.

Claim 11 (currently amended) A method for dynamically allocating Internet Protocol addresses for a wireless cell, comprising:

performing a predictive analysis to allocate Internet Protocol address space for an associated user group within the cell;

partitioning the Internet Protocol address space into groups of address spaces for use with ~~an~~ the associated group based on the predictive analysis;

updating the Internet Protocol address space via an IP address server; and

establishing guard bands for device categories to ensure a minimum number of Internet ~~protocol~~ Protocol addresses are available for the device categories.

Claim 12 (currently amended) The method of claim ~~12~~ 11, wherein the device categories comprise at least one of wireless devices during handoff, resident wireless devices and wired devices.

Claim 13 (original) The method of claim 12 further comprising the step of adjusting the guard bands based on the predictive analysis.

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Claim 14 (original) The method of claim 12, wherein said predictive analysis is performed using a moving weighted mean average.

Claim 15 (original) The method of claim 14, wherein said moving weighted average comprises the steps of:

- recording an average number of requests from hosts in each user group; and
- computing an average number of total IP addresses over a suitable period of time.

Claim 16 (currently amended) The method of claim 15, wherein said suitable fixed period of time is ~~approximately~~ 10 minutes.

Claims 17 - 21 (canceled)

Claim 22 (currently amended) ~~The A system of claim 21, further~~ for dynamically allocating Internet Protocol addresses for wireless cells, said system comprising:

an IP address server which determines a total Internet Protocol address pool for the wireless cell for use with an associated user group within the cell and performs a predictive analysis to determine a required Internet Protocol address pool for the wireless cell, wherein the server monitors the IP address requests associated with the wireless cell and updates the groups of address spaces based on the IP address requests;

a plurality of base stations, said base stations residing in a wireless network; and

wherein each of the plurality of base stations performs a predictive analysis to establish guard bands for a handoff host and a classification analysis to determine whether a wireless terminal is in a handoff state or is a resident host.